

PROJECT 10073 RECORD CARD

1. DATE 24 June 1963	2. LOCATION 39.38N 172.30W (Pacific)		12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input checked="" type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input checked="" type="checkbox"/> Other Satellite (ECHO I) <input type="checkbox"/> Insufficient Data for Evaluation <input type="checkbox"/> Unknown
3. DATE-TIME GROUP Local _____ GMT 25/0829Z	4. TYPE OF OBSERVATION <input type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input checked="" type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar		
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. SOURCE		
7. LENGTH OF OBSERVATION Not reported	8. NUMBER OF OBJECTS one	9. COURSE 075 degrees	
10. BRIEF SUMMARY OF SIGHTING Possible Satellite on course of 075 deg with brightness of 2d magnitude star. Speed unknown, altitude unknown.		11. COMMENTS On 25 June at 0801Z ECHO crossed the equator heading NE at 100 deg East. This would place the Satellite at about 47 deg North Latitude 170 deg W longitude at the time reported for this observation. This position and the description conforms with the analysis of the sighting as the Satellite ECHO I.	

24 25/08297

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

AF IN: 13259 (25 Jun 63) X/rdgN COMING

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INFO : NIN-9, XOP-1, XOPX-4, SAF-OS-3, ARMY-2, CMC-8, JCS-35, OSD-15,
DIA-25, DIA/CIIC-2, NSA-7 (112)
SMB A153

CZCHQA15 1ZCECB191

..... YY RUEAHQ

DE RUHPF B033

ZNR

Y 250917Z

FH COMBARPAC

TO RUHPHH/COMHAWSEAFRON

RUHLKM/C INCPACAF

RUUAUAH/HADD KUNIA

ZEN/C INCNORAD

INFO RUECW/CNO

RUEAHQ/COFS USAF

RUHPA/C INCPAC

RUHPB/C INCPACFLT

RUHAFS/C INCUSARPAC

RUHLKMP/PACAFBASECOM HICKMAN

RUECW/SECNAV

NAVY GRNC

BT NOTE: READDRESSED ELECTRICAL TRANSMISSION TO: CIA
ADVANCE COPY DELIVERED TO: DIA, NIN & XOPX
UNCLAS.

08012
27
08282

260.21
-83
177.

E → 47°N. 177°W

02

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

I N C O M I N G

NNNN

AF IN: 13259 (25 Jun 63)

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A. JANAP 146D

1. CIRVIS RPT

2. N43186

3. POSS SATELLITE INTENSITY OF SECOND MAGNITUDE STAR.

4. 39-38N 172-30W

5. 250829Z

6. ALT UNK

7. CUS 075

8. SPD UNK

9. EVALUATION UNKNOWN

BT

25/0918Z

DEPARTMENT OF THE AIR FORCE

STAFF MESSAGE BRANCH

HEADQUARTERS MESSAGE

AF IN : 13296 (25 Jun 63)

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INFO : NIN-9, XOP-1, XOPX-4, ~~SAF-OS-3~~, ~~ARMY-2~~, NAVY-2, CMC-8,

JCS-35, OSD-15, NSA-7, DIA-25, DIA-CIIC-2 (114)

02

SMB A162

CZCHQA160ZCQJA602

OO RUEAHQ

DE RUHLKH 9

ZNR

O 250949Z

FM 326 AIR DIV KUNIA FACILITY HAWAII

TO RUHLKM/PACAF HICKAM AFB HAWAII

RUHPHH/COMHAWSEAFRON PEARL HARBOR HAWAII

INKO RUEAHQ/CSAF USAF WASH DC

RUECW/CNO WASH DC

RUECW/SECNAV WASH DC

RUWGALB/CINCINORAD ENT AFB COLO

RUHPA/CINCPAC CAMP H M SMITH HAWAII

RUHAFS/CINCUSARPAC FT SHAFTER HAWAII

RUHPB/CINCPACFLT PEARL HARBOR HAWAII

RUUAUZ/COMUSJAPAN FUCHU AS JAPAN

RUAMC/COMUSKOREA SEOUL KOREA

RUAGFL/COMUSTDC TAIPEI TAIWAN

RUCSBRB/CINCSAC OFFUTT AFB NEBR

RUHPD/COMASWFORPAC FORD ISLAND HAWAII

AF GRNC

BT

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

I N C O M I N G

NNNN

AF IN : 13296 (25 Jun 63)

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UNCLAS/C IRVIS

1. NAVY 43186
2. POSSIBLE SATALITE
3. 3938N 17230W
4. 25/0829Z
- JTM COORSE 075 DEGREES
6. SP UNK
7. ALT UNK
8. SECOND MAGNITUDE STAR
9. EVALUATION UNKNOWN

BT

25/0957Z JUN RUHLKH

NOTE: Advance copy delivered to XOPX, NIN & DIA.
Retransmitted to CIA Per #636.

JUNE 19, 1963

SATELLITE 1960 IOTA 1, ECHO 1

These predictions are based on orbital elements revised on June 17, 1963
 T_0 = June 18.0, times are in days, U.T.
 Argument of perigee = $322.404 + 3.4818 (t - T_0)$
 Right ascension of ascending node = $156.885 + 37.002 (t - T_0)$

Inclination = 47.2699
 Eccentricity = $0.046678 + 2.019 \times 10^{-4} (t - T_0)$
 Semi-major axis = 7.841343 megameters
 Mean anomaly (Rev.) = $0.35111 + 12.302001 (t - T_0) + 1.225 \times 10^{-4} (t - T_0)^2$

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES										SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES									
EQUATOR S-N					SOUTH-NORTH					NORTH-SOUTH					EQUATOR S-N				
TIME	LONG.	LAT.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	LAT.	TIME	LONG.	HT.	BEAR.	TIME	LONG.
(UT)	(W)		CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.	(MI)	(N-E)	(UT)	(W)		CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.
JUNE 22, 1963																			
1 22.7	146.52	47.5	27.4	-82.95	1003	90.0°	27.8	-83.00	1003	90.0°	1 17.0	162.23	47.5	27.2	-83.09	944	90.0°	27.2	-83.14
2 17.8	175.64	45.0	22.4	-60.90	933	72.2°	33.3	-105.01	1065	107.8°	3 12.1	191.35	45.0	22.0	-61.00	873	72.2°	32.6	-105.18
3 12.9	204.75	40.0	14.3	-45.72	877	60.7°	37.7	-120.11	1105	119.4°	5 7.2	220.46	40.0	18.0	-45.80	818	60.7°	37.0	-120.30
4 8.0	233.87	35.0	15.3	-36.11	836	54.0°	41.1	-129.63	1128	126.1°	7 2.3	249.57	35.0	15.0	-36.17	760	54.0°	40.3	-129.84
5 3.0	262.98	30.0	12.7	-28.77	802	49.4°	44.0	-136.88	1143	130.8°	8 57.4	278.69	30.0	12.5	-28.82	751	49.4°	43.2	-137.09
6 58.1	292.10	20.0	4.2	-17.45	749	43.7°	49.3	-148.01	1156	136.5°	10 52.4	307.80	20.0	8.0	-17.47	706	43.8	48.5	-148.23
7 53.2	321.21	0.	0.	0.	681	40.0	59.1	-164.06	1133	140.3°	12 47.5	336.91	0.	0.	0.	662	40.0	58.2	-165.28
8 48.3	350.33	-20.0	-8.0	17.48	665	43.2°	-46.6	148.71	1057	136.4°	14 42.6	366.03	-20.0	-8.0	17.49	671	43.9	-47.3	148.53
9 43.4	379.44	-30.0	-12.4	29.86	678	49.5°	-41.5	137.51	1001	130.7°	16 37.7	395.14	-30.0	-12.4	28.86	699	49.5°	-42.1	137.36
10 38.5	408.56	-35.0	-14.9	36.23	692	54.0°	-38.7	130.22	967	126.1°	18 32.8	424.25	-35.0	-14.8	36.23	720	54.0°	-39.3	130.09
11 33.6	437.67	-40.0	-17.6	45.89	714	60.7°	-35.6	120.44	927	119.4°	20 27.9	453.36	-40.0	-17.7	45.87	749	60.7°	-36.1	120.53
12 28.7	466.79	-45.0	-21.5	61.14	750	72.2°	-31.5	105.46	873	107.8°	22 22.9	482.48	-45.0	-21.6	61.11	795	72.2°	-31.9	105.37
		-47.5	-26.4	83.30	807	90.0°	-26.4	83.34	808	90.0°			-47.5	-26.6	83.23	861	90.0°	-26.7	83.26
JUNE 23, 1963																			
0 23.8	155.90	47.5	27.6	-82.98	989	90.0°	27.6	-83.03	984	90.0°	0 18.0	151.59	47.5	27.1	-83.12	930	90.0°	27.1	-83.17
1 18.9	165.02	45.0	22.3	-60.92	919	72.2°	33.1	-105.05	1054	107.8°	2 13.1	180.70	45.0	21.9	-61.03	858	72.2°	32.5	-105.22
2 13.9	194.13	40.0	18.2	-45.74	852	60.7°	37.6	-120.15	1096	119.4°	4 8.2	209.81	40.0	17.9	-45.82	804	60.7°	36.8	-120.34
3 9.0	223.25	35.0	15.2	-36.13	822	54.0°	40.9	-129.68	1121	126.1°	6 3.3	238.93	35.0	15.0	-36.19	768	54.0°	40.1	-129.88
4 4.1	252.36	30.0	12.7	-28.79	789	49.4°	43.8	-136.93	1138	130.7°	7 58.3	268.04	30.0	12.5	-28.83	739	49.4	43.0	-137.14
5 59.7	281.48	20.0	4.2	-17.45	737	43.7°	49.1	-148.06	1155	136.5°	9 53.4	297.15	20.0	8.0	-17.48	698	43.8	48.2	-148.29
6 54.3	310.59	0.	0.	0.	675	40.0	59.1	-164.06	1139	140.3°	11 48.5	326.26	0.	0.	0.	659	40.0	58.0	-165.33
7 49.4	339.70	-20.0	-8.0	17.49	665	43.2°	-46.7	148.67	1069	136.4°	13 43.6	355.38	-20.0	-8.0	17.49	675	43.8	-47.5	148.48
8 44.5	368.82	-30.0	-12.4	29.86	678	49.5°	-41.6	137.48	1015	130.7°	15 38.7	384.49	-30.0	-12.4	28.86	705	49.4	-42.3	137.32
9 39.6	397.93	-35.0	-14.9	36.23	692	54.0°	-38.9	130.19	981	126.1°	17 33.7	413.60	-35.0	-14.8	36.22	728	54.0°	-39.4	130.05
10 34.7	427.05	-40.0	-17.6	45.89	721	60.7°	-35.7	120.42	941	119.4°	19 28.8	442.71	-40.0	-17.7	45.86	759	60.7°	-36.2	120.49
11 29.7	456.16	-45.0	-21.5	61.14	760	72.2°	-31.6	105.45	886	107.8°	21 23.9	471.82	-45.0	-21.6	61.09	808	72.2°	-32.0	105.35
12 24.8	485.28	-47.5	-26.4	83.30	820	90.0°	-26.5	83.33	820	90.0°	23 19.0	500.94	-47.5	-26.7	83.27	875	90.0°	-26.7	83.26
JUNE 24, 1963																			
1 19.9	154.30	47.5	27.5	-83.02	974	90.0°	27.5	-83.07	974	90.0°	1 14.0	170.05	47.5	27.0	-83.15	914	90.0°	27.0	-83.20
2 15.0	183.41	45.0	22.2	-60.94	904	72.2°	32.9	-105.10	1041	107.8°	3 9.1	199.16	45.0	21.8	-61.05	843	72.2°	32.4	-105.26
3 10.1	212.52	40.0	18.1	-45.76	837	60.7°	37.4	-120.21	1086	119.4°	5 4.2	228.27	40.0	17.8	-45.83	790	60.7°	36.6	-120.38
4 5.2	241.63	35.0	15.1	-36.14	807	54.0°	40.7	-129.73	1113	126.1°	6 59.3	257.39	35.0	14.9	-36.20	755	54.0°	39.9	-129.93
5 0.3	270.74	30.0	12.6	-28.80	775	49.4°	43.6	-136.98	1132	130.7°	8 54.4	286.50	30.0	12.4	-28.84	729	49.4	42.8	-137.19
6 55.3	299.85	20.0	4.1	-17.47	726	43.7°	49.0	-148.12	1153	136.5°	10 49.4	315.61	20.0	8.0	-17.48	689	43.8	48.0	-148.35
7 50.4	328.96	0.	0.	0.	679	40.0	58.6	-165.17	1146	140.3°	12 44.5	344.72	0.	0.	0.	657	40.0	57.7	-165.39
8 45.5	358.07	-20.0	-8.0	17.49	669	43.2°	-46.9	148.67	1082	136.5°	14 39.6	373.83	-20.0	-8.0	17.49	679	43.8	-47.7	148.43
9 40.6	387.18	-30.0	-12.4	29.86	687	49.5°	-41.8	137.48	1029	130.7°	16 34.7	402.94	-30.0	-12.4	28.85	713	49.4	-42.5	137.37
10 35.7	416.29	-35.0	-14.9	36.23	705	54.0°	-39.0	130.19	989	126.1°	18 29.7	432.05	-35.0	-14.8	36.21	738	54.0°	-39.6	130.06
11 30.8	445.40	-40.0	-17.6	45.89	730	60.7°	-35.8	120.42	949	119.4°	20 24.8	461.16	-40.0	-17.7	45.85	771	60.7°	-36.4	120.45
12 25.9	474.51	-45.0	-21.5	61.14	772	72.2°	-31.7	105.42	902	107.8°	22 19.9	490.28	-45.0	-21.6	61.08	821	72.2°	-32.1	105.31
		-47.5	-26.4	83.30	834	90.0°	-26.5	83.32	834	90.0°			-47.5	-26.6	83.19	891	90.0°	-26.6	83.24
JUNE 25, 1963																			
0 20.9	143.16	47.5	27.4	-83.05	960	90.0°	27.4	-83.10	960	90.0°	0 15.0	159.32	47.5	26.9	-83.18	899	90.0°	26.9	-83.23
1 16.0	172.27	45.0	22.1	-60.96	890	72.2°	32.8	-105.14	1028	107.8°	2 10.1	188.43	45.0	21.7	-61.07	828	72.2°	32.2	-105.30
2 11.1	201.38	40.0	18.0	-45.78	823	60.7°	37.3	-120.25	1075	119.4°	4 5.2	217.54	40.0	17.7	-45.85	777	60.7°	36.4	-120.43
3 6.2	230.49	35.0	15.0	-36.16	793	54.0°	40.5	-129.78	1104	126.1°	6 0.2	246.65	35.0	14.7	-36.21	743	54.0°	39.7	-129.96
4 1.3	259.60	30.0	12.5	-28.82	763	49.4°	43.4	-136.99	1125	130.7°	7 55.3	275.76	30.0	12.4	-28.85	718	49.4	42.6	-137.22
5 56.4	288.71	20.0	4.0	-17.49	713	43.7°	48.7	-148.18	1146	136.5°	9 50.4	304.87	20.0	8.0	-17.49	682	43.8	47.8	-148.40
6 51.5	317.82	0.	0.	0.	663	40.0	58.5	-165.22	1130	140.3°	11 45.5	333.98	0.	0.	0.	655	40.0	57.5	-165.45
7 46.6	346.93	-20.0	-8.0	17.49	653	43.2°	-47.1	148.68	1093	136.5°	13 40.6	363.09	-20.0	-8.0	17.49	665	43.8	-47.7	148.45
8 41.7	376.04	-30.0	-12.4	29.86	672	49.5°	-42.0	137.49	1040	130.7°	15 35.7	392.20	-30.0	-12.4	28.85	722	49.5	-42.7	137.37
9 36.8	405.15	-35.0	-14.9	36.23	691	54.0°	-39.1	130.20	1010	126.1°	17 30.7	421.31	-35.0	-14.8	36.21	747	54.0°	-39.8	130.07
10 31.9	434.26	-40.0	-17.6	45.89	710	60.7°	-35.9	120.43	971	119.4°	19 25.7	450.42	-40.0	-17.7	45.86	783	60.7°	-36.6	120.47
11 27.0	463.37	-45.0	-21.5	61.14	750	72.2°	-31.8	105.43	912	107.8°	21 20.8	479.53	-45.0	-21.6	61.08	834	72.2°	-32.3	105.33
12 22.1	492.48	-47.5	-26.4	83.30	807	90.0°	-26.6	83.30	807	90.0°	23 15.9	508.64	-47.5	-26.7	83.17	895	90.0°	-26.6	83.27